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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/667,266	09/19/2003	Thomas Berndt	2002P02639WOUS	6023

7590 01/11/2006

SIEMENS CORPORATION  
INTELLECTUAL PROPERTY DEPT.  
170 WOOD AVENUE SOUTH  
ISELIN, NJ 08830

EXAMINER
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ABRAMOWITZ, HOWARD E

ART UNIT	PAPER NUMBER
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1762

DATE MAILED: 01/11/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No. 10/667,266	Applicant(s) BERNDT ET AL.	
	Examiner Howard E. Abramowitz	Art Unit 1762	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☐ Responsive to communication(s) filed on 10 November 2005.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 7-14,23 and 25 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 7-14,23 and 25 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 19 September 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Response to Amendment***

Applicant's amendments filed 11/10/05, have been fully considered and reviewed by the examiner. Claims 1-6, 15-22, 24 and 26 have been canceled, claim 7 has been amended. Currently claims 7-14, 23 and 25 are pending in this action.

### ***Response to Arguments***

Applicant's arguments with respect to claims 7-14, 23 and 25 have been considered but are moot in view of the new ground(s) of rejection.

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 7-14, 23 and 25 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. In the amendment of claim 7, the removal of the semicolon after the word component makes the claim indefinite as it now reads "applying a mask having a layer of ceramic powder comprising zirconium oxide to an uncoated area of the surface of the component coating of the component; and removing the mask by dry ice blasting." This statement is nonsensical and for this reason the semicolon after the word "component" will be assumed to be present during the

Art Unit: 1762

prosecution of this claim, also the word "of" after the word "coating" will be assumed to be removed for grammatical purposes.

All other claims are rejected for being dependent on a rejected claim.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 7, 10-14, 23 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Elam (US Patent No. 4,128,522) in view of Armstrong et al. (US Patent No. 5,365,699).

Referring to claim 7, Elam discloses a method for coating a surface of a component comprising: applying a mask having a layer of ceramic powder comprising zirconium oxide to an uncoated area of the surface of the component and coating the component (column 1 lines 7-16, column 3 lines 15-37). Elam does not disclose using a dry ice blasting method for removal of the mask but rather discloses grit blasting (column 4 lines 62-68). However, Armstrong et al. teaches that dry ice blasting is advantageous over grit blasting as no residual material, like sand, is produced that needs to be removed (column 1 lines 14-30). Accordingly, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Elam as suggested by Armstrong et al. to use a dry ice blasting method with an expectation that this method will not produce residual blasting material that would need to be removed.

Referring to claim 10, Elam discloses that the maskant may include any amount of zirconium oxide these amounts would include an amount that would make the powder consist essentially of zirconium oxide (column 3 lines 38-45). It is noted that Elam discloses at column 3 line 47 that the maskant can include an inhibitor however, it would have been obvious to provide the zirconium oxide maskant without the inhibitor because it is well settled that omission of an element and its function is obvious if the function is not necessary see *Ex parte Wu*, 10 USPQ 2031 (Bd. Pat. App. & Inter. 1989).

Referring to claim 11, Elam discloses that the layer can be an aluminum layer (column 1 lines 7-16, column 3 lines 1-3).

Art Unit: 1762

Referring to claim 12, Elam discloses pack cementation as a method of applying the coating, which is a form of chemical vapor deposition (column 1 lines 41-42).

Referring to claims 13, 14, Elam discloses that the component can be part of a turbine including the blade (column 1 lines 17-38).

Referring to claim 23, Elam discloses the mask contains an organic binding agent (column 4 lines 25-48).

Referring to claim 25, Elam discloses that the coating can be sprayed (column 4 lines 56-61).

Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Elam in view of Armstrong et al. and further in view of Rigney et al. (US Patent No. 6,521,294).

Elam in view of Armstrong et al. teaches to use a mask formed from ceramic powder comprising zirconium oxide it does not teach to use a suspension to form the mask.

However, Rigney et al. discloses (column 5 lines 21-22) that a slurry, synonymous with suspension, made of powder materials can be used to form the mask on a turbine blade (column 3 lines 25-35).

Accordingly, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Elam to use a suspension to form the mask as suggested by Rigney et al. with the expectation that the suspension would have been an operable and suitable form in which to apply the maskant to the surface, because

Art Unit: 1762

Elam teaches to use a mask formed of ceramic powder to coat the surface and Rigney et al. teaches that the powder for masks can be applied in the form of a suspension.

Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Elam in view of Armstrong and further in view of Foster et al. (US Patent No. 4,726,104).

Elam in view of Armstrong discloses using a mask formed from a ceramic powder containing zirconium oxide it does not teach to form a paste with the ceramic powder.

However, Foster et al. teaches that the ceramic compound used as a mask for selectively coating turbine engine parts is a paste-like compound that is easily removable (abstract, column 5 line 11).

Accordingly, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Elam to use the ceramic powder in a paste form as suggested by Foster et al. with an expectation that it is easily removable after processing.

### ***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Howard E. Abramowitz whose telephone number is 571-272-8557. The examiner can normally be reached on monday-friday 9:00-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Timothy H. Meeks can be reached on 571-272-1423. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.


Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Application/Control Number: 10/667,266  
Art Unit: 1762

Page 8

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**SUPERVISORY PATENT EXAMINER**